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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,690	09/11/2003	Young-Bok Song	K-0008REI	8848

34610 7590 08/23/2006

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EXAMINER

EISEN, ALEXANDER

ART UNIT PAPER NUMBER

2629

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,690

Applicant(s)

SONG ET AL.

Examiner

Alexander Eisen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 8-21 and 25-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 22-24 and 35-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/980,965.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/11/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration is Defective

1. The reissue oath/declaration filed with this application is defective because none of the errors which are relied upon to support the reissue application are errors upon which a reissue can be based. See 37 CFR 1.175(a)(1) and MPEP § 1414.
2. The error indicated by the Applicant alleges that new **claim 8** is “broader in the aspect that it does not recite “simultaneous” and “synchronization”, and that the new independent **claims 17 and 24 (25?)** add apparatus claims. The examiner respectfully submit that the independent **claim 8** recites “applying at least a second scan pulse and a second sustain pulse to at least one of the plurality of second row electrodes”, which is directed to the invention that is separate and distinct from the invention that was originally claimed and did not require that limitation. In this sense **claim 8** would be more narrower in scope contrary to the Applicant’s assertion, if it would not be directed to a different invention (or embodiment). As such, claim 8 is a subject to restriction requirement.
3. Similarly, new independent **claims 11, 15, 17 and 25** recite apparatus claims that are different from the method claims recited in the original Patent claims 1-7 since they require the limitations “dividing the tri-electrode structure based on division of a field into a prescribed number of areas, wherein each are includes at least eight subfields” (per claim 7), or “driving each of the least two areas based on a prescribed number of sub-fields SF_n, the prescribed number of sub-fields including a scan concentrated period, wherein the scan concentrated period of the at least two areas does not overlap” (as per claim 15), or “at least one of the plurality of second row electrodes is driven by applying at least a second scan pulse and a second sustain

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pulse” (as per claims 17 and 25), the limitations that are nowhere to be found in the originally claimed invention. While all the claims above would be legitimate for seeking protection in timely filed continuing applications, they in no sense correct errors in the issued Patent and therefore are not subject to reissue. Hence, **claims 11-21 and 25-34** (claims 18-21 and 26-34 being dependent upon claims 17 and 25) are also subject to a restriction requirement.

4. The new independent **claim 35** appears to be a broadened version of the original claim 1.

Restriction Requirement

5. The newly added claims 8-21 and 25-34 are directed to separate and distinct inventions since they recite the limitations that are not required by the originally claimed invention (see discussion above). Therefore, claims 1-7, 22-24 and 35-42 has been constructively elected by the original presentation, claims 8-21 and 25-34 are being treated as non-elected and withdrawn from the prosecution of current reissue application, subject to filing a divisional reissue application.

Claims Rejection – 35 U.S.C. § 251

6. Claims 1-42 are rejected as being based upon a defective reissue oath under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

The nature of the defect(s) in the reissue oath is set forth in the discussion above in this Office action.

Receipt of an appropriate supplemental oath/declaration under 37 CFR 1.175(b)(1) will overcome this rejection under 35 U.S.C. 251. An example of acceptable language to be used in the supplemental oath/declaration is as follows:

“Every error in the patent which was corrected in the present reissue application, and is not covered by a prior oath/declaration submitted in this application, arose without any deceptive intention on the part of the applicant.”

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It appears that the original error statement by the Applicant directed to **claim 8** would be applicable to **claim 35**, rather than to claim 8, since claim 35, as has been conveyed to the Applicant earlier, appears to be a broadened version of claim 1.

7. Applicant is reminded of the continuing obligation under 37 CFR 1.178(b), to timely apprise the Office of any prior or concurrent proceeding in which Patent No. 6,288,693 is or was involved. These proceedings would include interferences, reissues, reexaminations, and litigation.

Applicant is further reminded of the continuing obligation under 37 CFR 1.56, to timely apprise the Office of any information which is material to patentability of the claims under consideration in this reissue application.

These obligations rest with each individual associated with the filing and prosecution of this application for reissue. See also MPEP §§ 1404, 1442.01 and 1442.04.

8. In accordance with 37 CFR 1.175(b)(1), a supplemental reissue oath/declaration under 37 CFR 1.175(b)(1) must be received before this reissue application can be allowed.

9. Applicant is also notified that any subsequent amendment to the specification and/or claims must comply with 37 CFR 1.173(b).

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the

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specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 7 recites: “wherein the first area is divided into at least two blocks, and scan pulses are alternately applied to the at least two blocks”. As can be seen from FIG. 7 of the disclosure, scan lines S1-Sm are not physically divided into blocks and therefore any pulses applied to the scan lines of any block of address lines would be also applied to other blocks, since the scan lines are contiguous and not divided, so it is not conceivable how the pulses applied to one block can alternate with the pulses applied to another block. The claim needs more clear language to convey what the inventors see as their invention.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

13. Claims 1-3, 22-24 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Saegusa, US 5,475,448.

With respect to claim 1 Saegusa discloses dividing row electrodes into a first area (containing odd row electrodes S1-S_{k-1}) and a second area (even electrodes S2-S_k); simultaneously applying scan pulses and sustain pulses (as can be seen from FIG. 2, while sustain pulses for a sub-field with weight of 128 are applied to odd rows, scan pulses (front lines of shaded areas) are applied to the even rows during sub0fields with weights 1, 2, 4, 8, 16 and 32); and applying address pulses to data (address electrodes A1-A_j).

As pertaining to claim 2, the scan pulse is applied to the row electrodes regardless of when the sustain pulse is applied (sustain pulses at the top part of the diagram in FIG. 2 are

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applied continuously for the highest weight sub-field regardless of what scan pulses are applied to the lower weight sub-fields in the bottom part of the diagram).

As pertaining to claim 3, the scan pulse and the data pulse in a certain line are applied before the application of the sustain pulses and therefore they are not applied when the sustain pulse has a rising edge (or any edge for that matter).

The claim language of claims 22-23 is similar to that of claims 1-2 and therefore these claims are rejected on the same grounds.

As pertaining to claims 24 and 39, input nodes of the odd lines are closer to the top of the display, whereas input nodes of the even lines are closer to the bottom of the display.

As to claim 35, its limitations are similar to those of claims 1 and 22, and therefore claim 35 is rejected on the same grounds.

As pertaining to claim 36, scan and sustain pulses are applied based on sub-fields (see FIG. 2).

As pertaining to claims 37 and 38, the number of sub-fields is based on a gray scale of $N=2^8=256$ units (col. 3, lines 4-9).

As pertaining to claim 40, each sub-field has its own reset, address and sustain periods (see FIG. 2 for WRITING, ERASING and sustain, shaded, periods).

As per claims 41-42, the number of sub-fields is based on a gray scale of $N=2^8=256$ units (col. 3, lines 4-9).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saegusa.

With respect to claim 5 Saegusa discloses address pulses which are data to construct the subfields bit by bit corresponding to a predetermined luminance, out of digital image data of eight bits (see FIGS. 1-2; col. 2, lines 9-20).

While with respect to claim 5 Saegusa does not specifically teaches 640 scan lines, the number of lines in the displays are often 640 or other, such as 600 or 1000, depending on the display vertical resolution, and therefore constitutes the number of intended design choice, which would be obvious to the artisans of ordinary skill in the art in the time when the invention was made.

As to claim 6, Saegusa teaches scanning lines for each sub-field, and therefore the scanning needs to be repeated seven times, i.e. for every consecutive bit of the image.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Eisen whose telephone number is (571) 272-7687. The examiner can normally be reached on M-F (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alexander Eisen
Primary Examiner
Art Unit 2629

17 August 2006